

## Radiation Alert Immediate Disclosure, Phase II

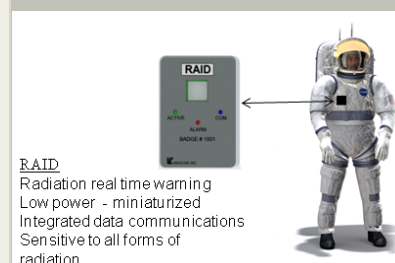
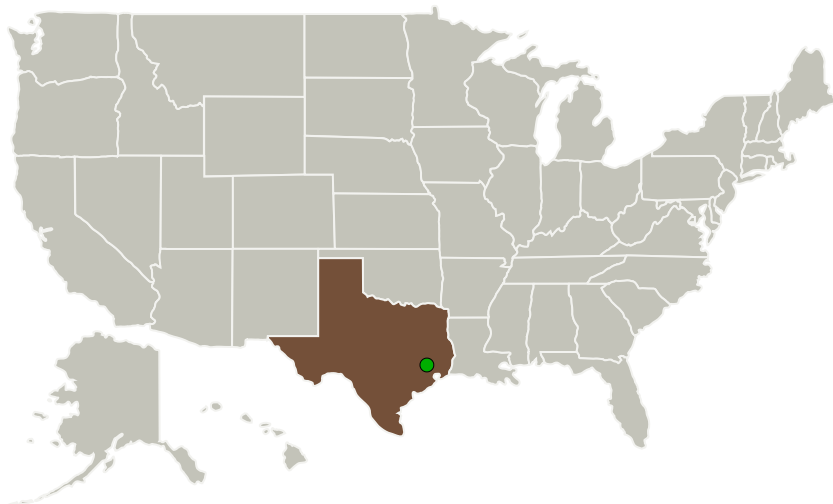
Completed Technology Project (2012 - 2015)



## Project Introduction

Invocon's Radiation Alert Immediate Disclosure (RAID) system is a miniature, low-power, real-time, active radiation badge. It is designed for monitoring personnel, equipment, and environments while minimizing complicated user interfaces. RAID's ability to determine characteristics and dose rate in addition to total dose provide significant advantages over other types of devices. A single sensor provides information about all types of ionizing radiation in order to provide a comprehensive assessment of radiation environments. Many radiation health experts believe that dose rate is an important parameter in addition to total dose for determining tissue damage. The real-time nature of RAID enables personnel to respond proactively to radiation events in order to minimize damage to personnel and the equipment on which they depend. RAID's wireless interface provides advantages for interrogating badges in difficult or inconvenient locations. Examples include monitoring radiation exposure to personnel throughout Extra-Vehicular Activities, reading monitors installed behind equipment racks or in isolated modules, and automatically downloading radiation data from astronauts' badges to minimize their workload. Phase II for this program will result in the delivery of fieldable badges that NASA can use for a Station Development Test Objective (SDTO), terrestrial evaluation, or general use by NASA researchers.

## Primary U.S. Work Locations and Key Partners



Radiation Alert Immediate Disclosure Project Image

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Organizations Performing Work	Role	Type	Location
Invocon, Inc.	Lead Organization	Industry Veteran-Owned Small Business (VOSB)	Conroe, Texas
● Johnson Space Center(JSC)	Supporting Organization	NASA Center	Houston, Texas

## Primary U.S. Work Locations

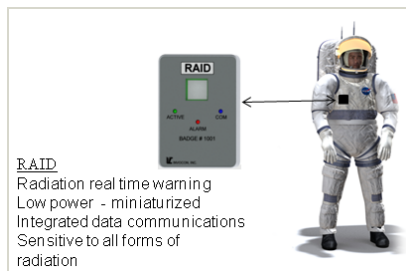
Texas

## Project Transitions

**April 2012:** Project Start**June 2015:** Closed out**Closeout Documentation:**

- Final Summary Chart(<https://techport.nasa.gov/file/137392>)

## Images

**Project Image**Radiation Alert Immediate  
Disclosure Project Image(<https://techport.nasa.gov/image/133975>)

## Organizational Responsibility

**Responsible Mission Directorate:**

Space Technology Mission Directorate (STMD)

**Lead Organization:**

Invocon, Inc.

**Responsible Program:**

Small Business Innovation Research/Small Business Tech Transfer

## Project Management

**Program Director:**

Jason L Kessler

**Program Manager:**

Carlos Torrez

**Principal Investigator:**

Eric Krug

**Co-Investigator:**

Eric Krug

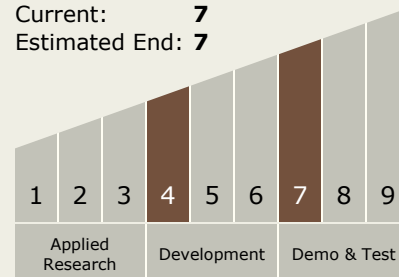
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### Technology Maturity (TRL)

Start: **4**  
Current: **7**  
Estimated End: **7**



### Technology Areas

#### Primary:

- TX06 Human Health, Life Support, and Habitation Systems
  - └ TX06.5 Radiation
    - └ TX06.5.5 Monitoring Technology

### Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System